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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/114,203	07/13/1998	ATSUSHI MIYANISHI	030682-066	8932

21839   7590   11/29/2001

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EXAMINER
BAUMEISTER, BRADLEY W

ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 11/29/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER

ART UNIT	PAPER NUMBER

DATE MAILED: 2 1

Below is a communication from the *EXAMINER* in charge of this application
COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.
Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a
final rejection under 37 CFR 1.113 may <u>only</u> be either: (1) a timely filed amendment which places the application in
condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for
Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check only a) or b)]

a) ☑ The period for reply expires __3__ months from the mailing date of the final rejection.

b) ☐ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 707.07(f)), the period for
reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection,
whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the
mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee
have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under
37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in
(b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____ . Appellant's Brief must be filed within the period set forth in
37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief
with requisite fees.

3. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search. (see NOTE below);

   (b) ☐ they raise the issue of new matter. (see NOTE below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying
the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.
NOTE: _____
_____
_____

4. ☐ Applicant's reply has overcome the following rejection(s): _____

5. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a
separate, timely filed amendment canceling the non-allowable claim(s).

6. ☑ The a) ☐ affidavit, b) ☐ exhibit, or c) ☑ request for reconsideration has been considered but does NOT place
the application in condition for allowance because: _See attached Response to Arguments_

7. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly
raised by the Examiner in the final rejection.

8. ☑ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):

   Claim(s) allowed: _____ .

   Claim(s) objected to: _____ .

   Claim(s) rejected: _1 & 12_____ .

   Claim(s) withdrawn from consideration: _2 – 11_____ .

9. ☐ The proposed drawing correction filed on _____ a) ☐ has   b) ☐ has not been approved by the Examiner.

10. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). ____ .

11. ☐ Other: _____

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

Response to Arguments

1.   Applicants' arguments filed 11/9/2001, traverse the rejection of claims 1 and 12 under 35

USC §103 as being obvious over Jassowski et al. '389, have been fully considered but they are

not persuasive.

      a.   As was explained in previous the Office Action(s), Jassowski teaches active areas

with "ordinary regions" and "recessed regions" with gates extending over each and respectively

terminating in endcaps. Further, Jassowski teaches that the respective endcap margins may either

approximately the same (e.g., comparing the endcap of ordinary region gate 3[1] with the endcap of

recessed region gate 2, or alternatively comparing the endcap of ordinary region gate 2 with the

endcap of the unnumbered recessed region gate to the right of gate 1). In other words $\alpha=0$, and

all endcaps have margins of x. Jassowski also teaches that the endcap margin of the recessed

region may also be much larger than that of the margin in the ordinary region (e.g., comparing

endcap or recessed region gate 1 with the endcap of either ordinary region gate 2 or 3).   In other

words $\alpha > x$.

      b.   The only limitation of the pending claims not expressly taught by Jassowski is $0 <$

$\alpha \leq x$. Applicants argue that this particular relationship leads to the goal of preventing shorting

between the source/drain regions. The examiner does not disagree that this may be true.

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[1]The gate numbering is according to the convention adopted by the Applicant and the

Examiner in the course of earlier prosecution.

However, Applicants have also stated that this same particular goal is also obtained by making α = 0 (see e.g., FIG 15), or by setting the margins to $\alpha \geq x$ (see e.g., FIGs 3 and 6). Thus, the goal of preventing current shorts is obtained regardless of the margin ratios employed, and no additional, unexpected or different results arise from setting the margins' relationship to $0 < \alpha \leq x$ as opposed to these higher or lower differential margin ratios.

  c. Applicant has argued that Jassowski does not address the problem of current defects between source/drain regions nor disclose the structure that the length of the margin part in the depressed regions is 2x, and that the Examiner should present references which clearly point out the problem of current defects between source/drain regions and disclose the structure that the length of the margin part in depressed regions is 2x. First, the examiner notes for the record that the whole point of providing gate endcaps extending beyond the active region is to prevent source/drain current leakage. Thus, Jassowski's disclosure of the presence of endcaps does imply that the S/D current leakage can be prevented by setting the endcap margin of the depressed region to $\alpha \geq 0$. Second, as was explained in the previous Office Action, it is immaterial whether Jassowski discloses or implies the problem of S/D leakage generally, or more specifically to set α to be $0 < \alpha \leq x$, so long as independent motivation existed for making this modification. Applicant has not argued why the motivation(s) set forth in the previous Office Action(s) is improper or insufficient.

  d. Accordingly the rejections set forth previously are maintained for the reasons set forth previously and hereinabove.
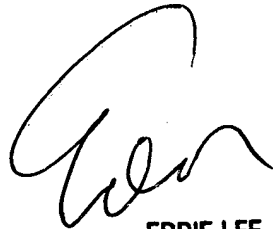
INFORMATION ON HOW TO CONTACT THE USPTO

2.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to the examiner, **B. William Baumeister,** at **(703) 306-9165.** The examiner

can normally be reached Monday through Friday, 8:30 a.m. to 5:00 p.m. If the Examiner is not

available, the Examiner's supervisor, Mr. Eddie Lee, can be reached at (703) 308-1690. Any

inquiry of a general nature or relating to the status of this application or proceeding should be

directed to the Group receptionist whose telephone number is (703) 308-0956.

B. William Baumeister

November 26, 2001

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